



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

As we proceed eastward from L. I., we find that there are a few of these same plants growing on soil of Tertiary age in the southern parts of the Eastern States; and it would seem that these species have a tendency to follow the course of the two more recent geological formations, throughout their whole extent along the Atlantic coast. Another fact which stands out prominently in this connection, is that not a single one of the above-mentioned plants, growing, as we have seen, just along the edge of the mantle of Glacial Drift is native of Europe; that is, they belong to a true American flora, which had its origin in the southern part of the continent. In contrast to which fact, we have another one, equally prominent, and that is, that of the species of plants growing on the material brought down by the ice sheet, about one-third are common to northern Europe and America, thus pointing to a common origin of each in the territory now occupied by the ice and snow of the Arctic regions.

N. L. BRITTON.

§ 61. **Teratology.**—*Lilium candidum* often has the uppermost flower 5-merous; all that I have noticed this year were so. I have seen 6-merous *Sarracenia purpurea*, and 4-merous *Tigridia*—the large cultivated species, (*Pavonia*?).  
D. C. E.

§ 62. **Botanical News.**—Trimen's *Journal of Botany* for June contains:—A Review of the British Characeae (2 plates), continued, by H. and J. Groves; Remarks on Botanical Nomenclature, by B. Daydon Jackson; Botany of the British Polar Expedition of 1876-7, by H. C. Hart; Wilhelm Philip Schimper, by W. Carruthers.

The *Botanical Gazette* for June contains the following notes:—Vitality of the Seeds of Serotinous Cones, and *Fraxinus quadrangulata* hermaphrodite, by G. Englemann; *Notulae exiguae*, by A. Gray; *Platanthera bracteata*, and Double *Thalictrum anemonoides*, by T. Meehan; *Cobaea scandens* proterandrous, by W. W. Bailey; Notes on certain Silkweeds, by Edward L. Greene; Notes from Florida, by A. H. Curtiss; A Natural Botanic Garden, by J. M. Coulter; Some Plants of Franklin County, Ky., by R. H. Wildberger; and Notes from Illinois, by H. L. Boltwood.

The *Gardeners' Chronicle* states that at the meeting of the Linnean Society on June 3, a paper was read by Mr. George Murray "On the Application of the Results of Pringsheim's Recent Researches on Chlorophyll to the Life of the Lichen." Summarizing the results of Pringsheim's labours, the author considered the suggestion of Dr. Vines that, by the aid of an artificial chlorophyll screen, the protoplasm of fungi might be excited to the decomposition of carbonic acid, and contended that this proposed experiment is proceeding naturally in lichens. He pointed out that in these organisms we have the fungal tissues in the body of the thallus, and the chlorophyll screen in the gonidia; and that light traversing the chlorophyll-containing gonidia—often occurring as a dense layer—excites in the fungal tissues the decomposition of carbonic acid. In evidence he adduced the plentiful occurrence in the fungal hyphae of starch, or rather lichenin—a substance of the same chemical composition as starch  $C_{12}H_{10}O_{10}$ .

and formed from it by the action of the free acids of the plant. In conclusion, he submitted that this process tended to explain the nature of the consortism of the fungal and algal elements in the lichen, and thus to support the views of Schwendener.

In *Nature* for June 17, Dr. A. Ernst, of Caracas, gives a very interesting account of the fertilization of *Cobaea penduliflora*, Hook. f., a species closely allied to the *C. scandens* so common in cultivation. He finds that the disk only secretes nectar immediately after the anthers burst, and that it is then produced in considerable quantity, and that unless the plants are cross-fertilized the same night, either by moths or artificially, the fruit is not developed. "As soon as the corolla has fallen off, the peduncle withdraws slowly amongst the dense foliage where the fruit develops, protected from all kinds of injury."

The current number of Case's *Botanical Index* has, among its varied contents, a communication from a Canadian correspondent in regard to a monstrous specimen of *Fuchsia*, and which is apparently, from the description and accompanying figure, a case of pleiotaxy or repetition of the calyx. The *Fuchsia* does not appear in the short list of those plants in which this kind of change has been observed to occur by Dr. Masters and others.

*Grevillea* for June contains: An introductory List of Desmidiaceae found in the British Islands, since Ralf's Desmidiaceae; Observations on *Peziza* by M. C. Cooke; *Hymenochaete* and its allies, by M. C. Cooke; Fungi of Australia, by C. Kalchbrenner; *Dacrymyces succineus*, by W. Phillips.

Some observations, which will prove of interest to those engaged in the study of the algae, have been made by Herr Stahl on the motion caused by the effects of light on some minute species belonging to the Conjugatae. He finds that *Closterium moniliferum*, one of the Desmids, under diffuse daylight of little intensity, presents its longitudinal axis to the light rays, one-half of the cell being alternately attracted and the other half repelled, so that both halves are equally exposed to light. When the intensity of the light was increased the cells changed their position, and placed themselves at right angles to the incident light.

The *Gardeners' Chronicle* (July 10) gives an illustration of a peloric orchid, which at first sight so much resembles a flat-petalled iris that it might well be mistaken for one. It represents a flower of *Laelia purpurata* in which the three sepals were equal in size and shape, as also were the three petals—the latter being all deeply colored and lip-like. In the centre of the flower was a three-toothed column with no anthers. Below the flower were indications of a three-celled ovary, the cells being placed opposite to the sepals. Allowing for the absence of the stamens, the diagram of the flower was exactly that of an iris. From the same number of the *Chronicle* we learn that the entire cryptogamic herbarium (including original drawings, dissections, and notes) of the late Prof. W. P. Schimper, of Strasburg, whose important works upon mosses are so well known, has been purchased by the Baroness Burdett Coutts, and presented to the Herbarium of the Royal Gardens, Kew.